REPLACEMENT SHEET

Abstract

A heat-insulation material for a heat-insulation layer (3) for a carrier body (2) for preventing heat transfer between the carrier body and a surrounding area (7) therearound includes at least one luminous substance which is excitable for emitting luminescent light having a defined emission wavelength and includes at least one type of metal oxide containing at least one trivalent metal (A). Also described is an arrangement of at least one heat-insulation layer which contains the heat-insulation material and is applied to the carrier body. The described heat-insulation material is characterised in that the metal oxide is embodied in the form of a mixed oxide selected in a perovskite group of total formula $AA'O_3$, and/or of pyrochlore of total formula $A_2B_2O_7$, wherein A' is the trivalent metal and B is a tetravalent metal. The heat-insulation layer containing the heat-insulation material is preferably used for a gas turbine.